

Syncom Space Services (S3) Begins Operations at Michoud Assembly Facility

February 1, 2016 marked the beginning of a major new contract at Michoud – the NASA Synergy Achieving Consolidated Operations & Maintenance (SACOM) contract, under which NASA consolidated three pre-existing contracts:

and at Stennis facilities. The S3 entity is a joint venture of two major government contractors, PAE and BWXT, who combined their strengths in facility operations and engineering in a partnership created specifically for the SACOM



Executives from PAE, BWXT, and S3 pause in front of Robotic Weld Tool 3 during a recent tour. Pictured left to right: Cliff Plaxco, Dave Ferris, Bill Fox, Karl Williams, Rex Geveden, Jim Holt, Mike Matteson, Sandy Baker, Dave Richardson, Ken Camplin, Gary Camper, and Michael Keene.

MSFOC at Michoud and two separate contracts for facilities and test stand operations at Stennis Space Center. Syncom Space Services (or S3) was chosen as the contractor to provide centralized management of the facility operations, maintenance requirements and manufacturing and test services at both Michoud

opportunity.

The S3 team is led by President Mike Matteson, who is familiar with NASA operations through his experience working at Stennis Space Center and Johnson Space Center under PAE and predecessor companies. Reporting to Mike Matteson is Michael Keene, who serves as

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Letter from Leadership

Team,



*Bobby Watkins,
Michoud Director*

I hope you are as excited as I am to see the return of the Michoud Messenger. Our employee newsletter is a great way to share information with people who work at Michoud. The newsletter will cover a wide variety of topics like project updates, facility news, events, and features on our coworkers.

I am so proud of the people who work here. You're given

don't do what they do because they have to. In the past six years, the team has performed over 200 safety related work orders.

You probably don't realize it, but you see their handiwork throughout the facility. Here are just a couple of examples of improvements they've made: installing solar powered lights at crosswalks; improving access to sidewalks; removing a number of tripping hazards in the facility and purchasing personal protective equipment that's so comfortable, the workers are using them even when they don't have to!

The InstaGators received a "Best Practice" award from



On March 23, Michoud Director Bobby Watkins commended the InstaGators for helping to keep Michoud and its employees safer.

challenging, even daunting tasks and come up with innovative solutions that get the job done. You push yourselves to be better, work smarter and keep costs down. Your efforts continue to impress!

Last month I had the privilege of speaking with an impressive group - the InstaGators. These individuals are volunteers and really care about the safety and well-being of their fellow workers. They

NASA for their inspections of eyewash stations and emergency showers!

A big thank you to the InstaGators for looking out for our safety!

*- Bobby Watkins,
Director of Michoud
Assembly Facility*

Editor's Note: If you have a question or topic, you'd like to see Bobby address in his column, please email him at Bobby.j.watkins@nasa.gov.

First LOX Tank leaves VAC!

A liquid oxygen tank confidence article for NASA's new rocket, the Space Launch System, has completed final welding on the Vertical Assembly Center at Michoud Assembly Facility in New Orleans. This is the first glimpse of what one of the two tanks will look like that make up the SLS core stage. Towering more than 200 feet tall with a diameter of 27.6 feet, the core stage will store cryogenic liquid hydrogen and liquid oxygen that will feed the vehicle's RS-25 engines. Confidence hardware



Measuring 52 feet high and 27.6 feet in diameter, the tank above is being transported from the Vertical Assembly Center into Cell A. The LOX tank is designed to contain 200,000 gallons of liquid oxygen and will weigh 1.9 million lbs. once fully loaded.

verifies weld procedures are working as planned and tooling-to-hardware interfaces are correct. It will also be used in developing the application process for the thermal protection system, which is the insulation foam that gives the tank its orange color. The liquid oxygen tank is the smaller of the two tanks in the core stage. Components of the liquid hydrogen tank confidence article completed welding in February at Michoud. All welding for the SLS core stage for the Block I configuration of the rocket -- including confidence, qualification and flight hardware -- will be done this summer in preparation for its first flight with NASA's Orion spacecraft in 2018.

Orion EM-1 Spacecraft Delivered to KSC

The Orion crew module pressure vessel arrived at Kennedy Space Center in Florida and is now secured in an upgraded version of a test stand called the “birdcage” inside the Neil Armstrong Operations and Checkout (O&C) Building high bay. Orion will eventually take NASA on a journey to Mars, but first, the spacecraft is being prepared for a mission past the moon during Exploration Mission-1 (EM-1).

The pressure vessel is the crew module’s underlying structure. Processing at Kennedy began Feb. 3 to prepare it for launch atop the agency’s Space Launch System (SLS) rocket from Kennedy’s Launch Pad 39B in 2018.

“The arrival of Orion is very exciting for us,” said Scott Wilson, NASA Orion production manager. “This is the first mission where the Orion spacecraft will be integrated with the large Space Launch System rocket. Orion is the vehicle that’s going to take astronauts to deep space.”

The pressure vessel arrived Feb. 1 aboard NASA’s Super Guppy aircraft from the Michoud Assembly Facility in New Orleans to Kennedy’s Shuttle Landing Facility, operated by Space Florida. It was offloaded and transported to the O&C the next day.

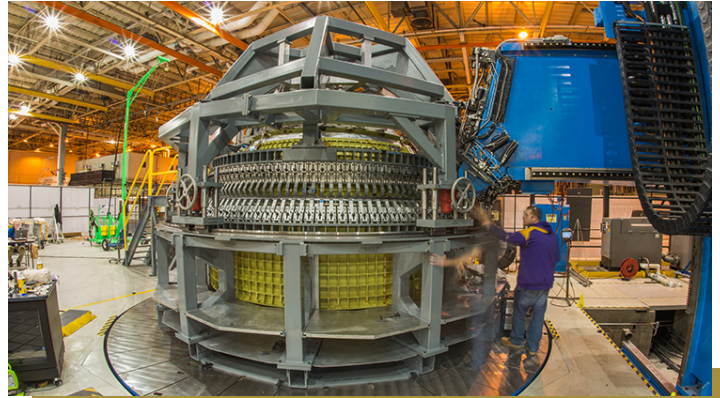
Over the next 18 months, more than 100,000 components will arrive at the center. A team of engineers and technicians with NASA and Orion manufacturer Lockheed Martin will integrate them with the spacecraft. The module will receive its avionics; electrical power storage and distributions systems; thermal controls; cabin pressure control; command and data handling; communications and tracking; guidance, navigation and control; reaction control system propulsion; and flight software and computers.

“At Kennedy, we are going to turn the pressure vessel into a fully operational spacecraft,” Wilson said. “We have a robust test program that is distributed across key facilities in several states. After we complete testing here, Orion will be sent to Plum Brook Station at the agency’s Glenn Research Center in Ohio for additional testing.”

Thanks to lessons learned from the launch of Exploration Flight Test-1, the first launch of an

Orion spacecraft into space in December 2014, the pressure vessel is about 500 pounds lighter and has fewer parts, according to Mike Hawes, Lockheed Martin Orion program manager.

“We learned a lot from the first flight test,”



On Jan. 13, 2016, Lockheed Martin technicians finished welding together the primary structure of the Orion spacecraft destined for deep space, marking another important step on NASA's Journey to Mars.

Hawes said. “Exploration Mission-1 will be a demanding, rigorous mission. We’re ready to start the work.”

About a year from now, the Orion crew module will be powered on and prepared for all of the tests that will confirm the spacecraft is ready for flight. Orion will be integrated with the European Space Agency-provided service module that will provide the main propulsion system and power. The spacecraft will be fueled and stacked atop the SLS rocket for its historic launch.

The main goal of the first integrated launch of the SLS rocket and Orion spacecraft will be to demonstrate NASA’s new capability to launch future crewed, deep-space missions to an asteroid and a journey to Mars.

At liftoff, the SLS Block 1 rocket on EM-1 will provide about eight million pounds of thrust, greater than any other rocket in the world today.

Orion will travel about 40,000 miles beyond the moon over the course of a three-week mission. During re-entry, Orion will travel at speeds up to 25,000 mph, withstand temperatures of 5,000 degrees F and splashdown in the Pacific Ocean off the San Diego coast.

Michoud's Robot Repair Unit Deployed to FIRST Robotics Bayou Regional



This year, 57 high school teams competed in the FIRST Robotics Bayou Regional held March 17, 18, and 19 at the Pontchartrain Center in Kenner, Louisiana and of course, the Michoud Assembly Facility Robot Repair Unit was there to keep teams in the competition. Over the 2 ½ days, the mobile machine shop cranked out about 150 jobs, thanks in large part to the NASA and S3 team members who prepared the trailer for the competition. Pictured above, S3 employees Barry Ermingier (foreground) and Jeremy LeBouef (background) work on repairs. Not pictured, NASA employee Arlan Cochran and S employees James Jones and Chip Howat, worked the event and contributed to its success.

Launching Careers to the International Space Station



Students from David Thibodaux STEM Magnet Academy in Lafayette, LA, watch with anticipation the launch of the CRS-6 Mission. The Orbital ATK Cygnus capsule contained an experiment that the high school students designed and built to study both the growth of the micrococcus luteus bacteria and test the effectiveness of anti-bacterial agents in microgravity. Once an astronaut aboard the ISS activates the experiment, the students will monitor the bacterial growth, collect the data and generate a report with the results.

S3 at Michoud *continued from pg 1*

Deputy General Manager of the Michoud Assembly Facility and brings decades of experience in engineering and manufacturing from his leadership roles at BWXT. Mike Matteson, Michael Keene and the rest of the S3 leadership team looks forward to holding several all-hands meetings in the coming months and attending site-wide activities.

"We are honored and excited to have been chosen for the important work of the SACOM contract," said Mike Matteson. "We recognize the highly talented workforce that has been in place for years at Michoud and are proud to have them as part of the S3 team. Between supporting the NASA mission in manufacturing and assembling components for the Space Launch System, and supporting our tenant companies in their respective missions, it's an exciting time to be at Michoud."

michoud
messenger

April 2016
Volume 7, Issue 1

The Michoud Messenger is the official publication for the NASA Michoud Assembly Facility. Each issue is published bi-monthly for civil servants, contractors, and site tenants. For suggestions or submissions, please contact Chip Howat at carl.j.howat@nasa.gov.

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